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wherein the determining step includes the steps of receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of the change in condition upon reception of the condition change signal of the engine unit.--.

REMARKS

Applicants request favorable reconsideration of the above-referenced application in view of the foregoing amendments and the following remarks.

Claims 1-3, 5-7, 9-12, 14-16, 18-25, 27-33, 35-41, 43-47 and 49-54 are pending in the present application, with claims 1, 6, 10, 15, 19-21, 29, 37, 38, 44 and 50-54 being independent. Claims 1, 5, 6, 9, 10, 14, 15, 18-21, 27, 29, 35, 27, 39, 43, 44 and 49 are amended herein to even more clearly describe the claimed invention in a manner that distinguishes over the cited art. Claims 4, 8, 13, 17, 26, 34, 42 and 48 are canceled without prejudice or disclaimer, and claims 51-54 are newly presented to provide Applicants with a scope of protection commensurate with their disclosure.

In the Office Action, claims 1, 3-5, 10, 12-14 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,740,368 (Villalpando). This rejection is respectfully traversed.

Independent claim 1 recites a printing apparatus for printing data corresponding to a print job received from a host apparatus, including determination means for determining based on a signal indicating that a condition of said printing apparatus has changed if a new condition corresponds to a power-OFF notice; and informing means for supplying information indicating that a power supply is scheduled to be turned off to the host apparatus when said determination means determines that the new condition corresponds to the power-OFF notice, wherein said determination means includes reception means for receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and condition acquisition means for acquiring from the engine unit contents of a new condition upon reception of the condition change signal from the engine unit.

Independent claim 10 recites a method of controlling a printing apparatus for receiving a print job from a host apparatus and printing out data corresponding to

the job from an engine unit, including a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if a new condition corresponds to a power-OFF notice; and an informing step of supplying information indicating that a power supply is scheduled to be turned off to the host apparatus when it is determined in the determination step that the new condition corresponds to the power-OFF notice, wherein the determination step includes the steps of receiving from the engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of a new condition upon reception of the condition change signal.

Independent claim 19 recites a computer readable storage medium that stores a program for printing out data corresponding to a print job received from a host computer, said program including a code of a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if a new condition corresponds to a power-OFF notice; and a code of an informing step of supplying information indicating that a power supply is scheduled to be turned off to the host apparatus when it is determined in the determination step that the new

condition corresponds to the power-OFF notice, wherein the determination step includes the steps of receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of a new condition upon reception of the condition change signal.

Villalpando, on the other hand, is understood by Applicants to teach a system in which processing modules employing different management protocols are coupled to each other and to a peripheral device through a network and a NEB. The NEB includes plural agents, each with a different management protocol, a protocol-independent interface which transmits and receives messages to and from the network, and an instrumentation interface. The instrumentation interface operates to translate request messages from the manager into calling signals for the managed device controller, to receive status and attribute signals from the device controller and to send data messages to the requesting agent. Alert signals from the managed devices are sent to the processing modules via the plural agents, each with the management protocol corresponding to each processing module. Therefore, Villalpando is understood to disclose management of devices connected through a network. At column 4, lines 31-34, and

in Figure 2, Villalpando describes that printer status data is transferred from a printer engine 224 to a printer controller 220. However, according to Applicant's understanding, the "please power-OFF" status symbol (column 4, line 56), is merely an example of data recognized by the network interface controller 203 shown in Figure 2. This description does not teach or suggest from where it is the data is transferred.

According to Applicant's understanding, Villalpando relates to transferring data according to an SNMP protocol. Therefore, Villalpando is not understood to require a construction which receives a conditioned change signal indicating that a condition of an engine unit has changed, and which acquires contents of the condition change. Rather, a construction is provided for transmitting a signal indicative of changes in a printer engine's state and a signal indicative of the change state via signal lines 221, 223, as shown in Figure 2.

Therefore, Villalpando is not understood to disclose or suggest at least the above-noted features of the present invention relating to receiving a condition change signal indicating that a condition of an engine unit has changed, and acquiring contents of a new condition upon

receipt of the conditioned change signal, as recited in each of independent claims 1, 10 and 19.

Therefore, independent claims 1, 10 and 19 are submitted to patentably define the invention over the cited art.

Further, dependent claims 3, 5, 12 and 14 recite features in addition to those recited in their respective base claims, and are submitted to be patentable in their own right.

Claims 21, 26-29 and 34-37 are rejected under § 102(e) as being anticipated by U.S. Patent No. 5,700,003 (Sung). This rejection is respectfully traversed.

Independent claim 21 recites a printing apparatus which is connected to a host apparatus and prints out data corresponding to a print job received from the host apparatus from an engine unit, including determination means for determining based on a signal indicating that a condition of said printing apparatus has changed if the change in condition corresponds to a change in remaining paper quantity; and informing means for informing the host apparatus of the change in remaining paper quantity when said determination means determines that the change in condition corresponds to the change in remaining paper quantity,

wherein said determination means includes reception means for receiving from the engine unit a condition change signal indicating that a condition of the engine unit has changed, and condition acquisition means for acquiring from the engine unit contents of the change in condition.

Independent claim 29 recites a method of controlling a printing apparatus which is connected to a host apparatus and prints out data corresponding to a print job received from the host apparatus from an engine unit, including a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if the change in condition corresponds to a change in remaining paper quantity; and an informing step of informing the host apparatus of the change in remaining paper quantity when it is determined in the determination step that the change in condition corresponds to the change in remaining paper quantity, wherein the determination step includes the steps of receiving from the engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of the change in condition upon reception of the condition change signal of the engine unit.

Independent claim 37 recites a computer readable storage medium which is connected to at least one host apparatus and stores a program for processing a print job from the host apparatus, the program including a code of a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if the change in condition corresponds to a change in remaining paper quantity; and a code of an informing step of informing the host apparatus of the change in remaining paper quantity when it is determined in the determination step that the change in condition corresponds to the change in remaining paper quantity, wherein the determination step includes the steps of receiving from the engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of the change in condition upon reception of the condition change signal of the engine unit.

Sung, on the other hand, relates to an image forming apparatus having a sensing device which senses a remaining amount of paper sheets and displays the remaining amount of paper. Sung is not understood by Applicants to include any disclosure relating to transmitting data,

indicative of a change in a printer engine state, from the engine unit.

Therefore, Applicants do not understand Sung to teach or disclose at least the above-noted features of the present invention relating to receiving a condition change signal indicating that a condition of the engine unit has changed, and acquiring contents of the change in condition, as recited in each of independent claims 21, 29 and 37.

Therefore, Applicants submit that independent claims 21, 29 and 37 patentably define the invention over the cited art.

Further, dependent claims 27, 28, 35 and 36 include features in addition to those recited in their respective base claims, and are submitted to be patentable in their own right.

Claims 2, 6-9, 11, 15-18 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Villalpando in view of U.S. Patent No. 5,791,790 (Bender, et al.). This rejection is respectfully traversed.

Independent claim 6 relates to a printing apparatus for printing data corresponding to a print job received from a host apparatus, including determination means for determining based on a signal indicating that a condition of

said printing apparatus has changed if a new condition corresponds to a power-OFF notice; storage means for storing a condition of the print job from the host apparatus in a nonvolatile storage medium when said determination means determines that the new condition corresponds to a power-OFF notice condition; and informing means for, when the power supply is turned on, supplying information of an incomplete print job to the host apparatus on the basis of the print job condition stored by said storage means, wherein said determination means includes reception means for receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and condition acquisition means for acquiring from the engine unit contents of a new condition upon reception of the condition change signal from the engine unit.

Independent claim 15 relates to a method of controlling a printing apparatus for printing data corresponding to a print job received from a host apparatus, including a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if a new condition corresponds to a power-OFF notice; a storage step of storing a condition of the print job from the host apparatus in a nonvolatile storage medium

when it is determined in the determination step that the new condition corresponds to a power-OFF notice condition; and an informing step of supplying information of an incomplete print job to the host apparatus on the basis of the print job condition stored in the storage step when the power supply is turned on, wherein the determination step includes the steps of receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of a new condition upon reception of the condition change signal.

Independent claim 20 relates to a computer readable storage medium that stores a program for printing out data corresponding to a print job received from a host computer, said program including a code of a determination step of determining based on a signal indicating that a condition of said printing apparatus has changed if a new condition corresponds to a power-OFF notice; a code of a storage step of storing a condition of the print job from the host apparatus in a nonvolatile storage medium when it is determined in the determination step that the new condition corresponds to a power-Off notice condition; and a code of an informing step of supplying information of an incomplete print job to the host apparatus on the basis of the print job

condition stored in the storage step when the power supply is turned on, wherein the determination step includes the steps of receiving from an engine unit a condition change signal indicating that a condition of the engine unit has changed, and acquiring from the engine unit contents of a new condition upon reception of the condition change signal.

As noted above, Villalpando fails to teach or suggest at least the above-noted features of the present invention relating to receiving a condition change signal indicating that a condition of an engine unit has changed, and acquiring contents of a new condition upon receipt of the condition change signal. Similar features are recited in each of independent claims 6, 15 and 20.

Bender, et al. is understood to relate to a laser printer which prints a smaller job first and recovers a print job which is entirely received from a host after occurrence of a power failure. Therefore, Bender, et al. is understood to disclose job management on a network, such as which action to take when data including information indicating the end of job is received.

However, Bender, et al. is not understood to disclose or suggest at least the above-noted features of the

present invention that are absent in the teachings of  
Villalpando.

Therefore, independent claims 6, 15 and 20 are submitted to patentably define the invention over the cited art.

Further, dependent claims 2, 7, 9, 11, 16 and 18 include features in addition to those recited in their respective base claims, and are submitted to be patentable in their own right.

Claims 22-25 and 30-33 are rejected under 103(a) as being unpatentable over Sung in view of U.S. Patent No. 5,859,956 (Sugiyama, et al.). This rejection is respectfully traversed.

As noted above, independent claims 21 and 29 include features which patentably define the invention over Sung, et al.

Sugiyama, et al. is understood to relate to an information processing device which determines whether a control code constituting document information is processable or not, and which transfers the document information to another information processing device connected therewith when the control code is determined to be unprocessable. Therefore, Sugiyama, et al. is understood to disclose a

technique of status transmission and a technique relating to job allocation. However, Sugiyama, et al. is not understood to disclose or suggest at least the above-noted features of the present invention that are absent from the teachings of Sung.

Therefore, Applicants submit that dependent claims 22-25 and 30-33 patentably define the invention over the cited art.

Claims 38-50 are rejected under § 103(a) as being unpatentable over Sugiyama, et al. in view of U.S. Patent No. 5,812,745 (Kim, et al.). This rejection is respectfully traversed.

As noted above, Sugiyama, et al. fails to disclose or suggest at least the above-noted features of the present invention relating to receiving a condition change signal indicating that a condition of an engine unit has changed, and acquiring contents of the change in condition upon receipt of the conditioned change signal. Similar features are recited in each of independent claims 38, 44 and 50.

Kim, et al. relates to an image forming apparatus which has an engine for performing a print operation and which receives data to be printed from a host. According to Applicants' understanding, the apparatus receives data to be

printed when the engine is in a normal state or in an abnormal state which can be recovered. However, the apparatus of Kim, et al. is not understood to receive data to be printed when the engine is in an abnormal state which cannot be recovered. Kim, et al. is not understood to disclose or suggest at least the above-noted features of the present invention that are absent in the teaching of Sugiyama, et al.

Therefore, Applicants submit that independent claims 38, 44 and 50 patentably define the invention over the cited art.

Further, dependent claims 39-41, 43, 45-47 and 49 include features in addition to those recited in their respective base claims, and are submitted to be patentable in their own right.

Therefore, Applicants request withdrawal of the rejections of claims 1-3, 5-7, 9-12, 14-16, 18-25, 27-33, 35-41, 43-47, 49 and 50.

Further, newly presented independent claims 51-54 also recite features relating to receiving a condition change signal indicating that a condition of an engine unit has changed, and acquiring contents of a new condition (a change in condition) upon receipt of the condition change signal.

Therefore, Applicants submit these newly presented claims to also patentably define the invention over the cited art.

Applicants submit the present application to be in condition for allowance, and request an early notice thereof.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

  
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